

Prepared for:



Alabama Aerospace

Economic Impact of Aerospace Sector in Alabama

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Aerospace Sector in Alabama

- Built on a rich history in Alabama, the aerospace and aviation sector continues to be a significant player in the state's economy. The aviation/aerospace industry has been integral to the United States Space and Defense programs for more than a few decades.
- 2019 data is used in the study:
 - full availability
 - a normal year
- However, the impact of the aerospace sector is not restricted to 2019 and is representative of the sector, annually.

What is Economic Impact?

- Direct Effect/Impact: Direct employment or spending that has occurred
- Indirect Effect : The subsequent spending that occurs due to initial spending, causing supply chain effects
- Induced Effect : The spending that occurs when employees are paid and spend on everyday goods and services
- Multiplier impact: Indirect effect + Induced effect
- Total Impact: Direct impact + Multiplier impact

Economic Impact

- Three parts in the analysis
 - Contracts to the aerospace sector (including aviation manufacturing and service)
 - Contracts from NASA (primary entity that supports the aerospace industry)
 - Employment in the aerospace industry from companies in the sector

Economic Impact of Aerospace Contracts in the State of Alabama

- Almost all aerospace companies receive contracts from both DOD and NASA.
- Other contracting agencies: Department of Justice, Department of Agriculture and Department of Commerce,
- 99% of the contracts are performed in the Redstone Arsenal region.

Economic Impact of Aerospace Contracts in the State of Alabama (in Millions except Employment)			
Impact	Direct	Multiplier	Total
Employment	5,776	5,479	11,255
Payroll	\$519	\$273	\$791
Output	\$2,606	\$969	\$3,575

Economic Impact of NASA Contractors in the State of Alabama

- Contracts awarded by NASA funds research, construction, specialized demand for equipment, structures, materials for space missions and other aerospace activities.
- Other NASA Centers also award contracts fulfilled in Alabama.
- Most of the contracts performed in the Redstone Arsenal region.

Economic Impact of NASA Contractors in the State of Alabama (in Millions except Employment)			
Impact	Direct	Multiplier	Total
Employment	14,054	10,511	24,565
Payroll	\$777	\$495	\$1,272
Output	\$1,916	\$1,576	\$3,492

Economic Impact of Aerospace Employment in the State of Alabama

- Employment in companies in the aerospace sector, especially those that build, repair and maintain aircraft and service aircraft.

Economic Impact of Aerospace Employment in the State of Alabama (in Millions except Employment)			
Impact	Direct	Multiplier	Total
Employment	12,226	15,212	27,438
Payroll	\$1,402	\$785	\$2,188
Output	\$7,833	\$2,469	\$10,302

Total Economic Impact of Aerospace Industry in the State of Alabama

- Total impact on employment is 5% of average annual employment of all industries
- Total impact on payroll is 5.5% of total annual wages in Alabama.

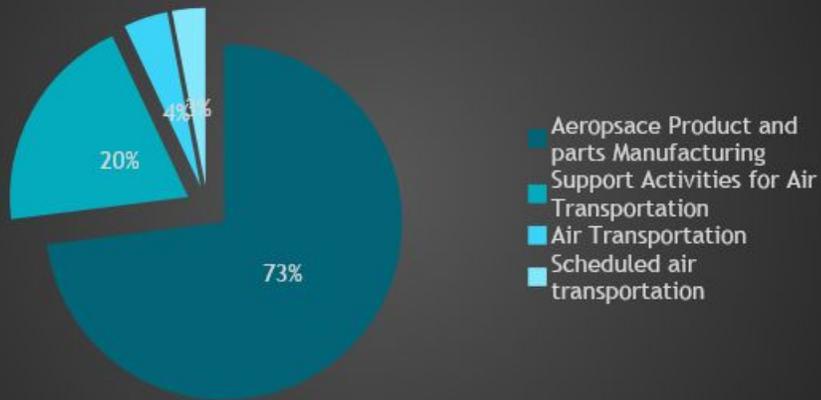
Total Economic Impact of Aerospace Industry in the State of Alabama (in Millions except Employment)			
Impact	Direct	Multiplier	Total
Employment	32,055	31,202	63,258
Payroll	\$2,698	\$1,553	\$4,251
Output	\$12,356	\$5,014	\$17,369

Highlights of Aerospace Industry

- Aerospace Product and Parts Manufacturing sector (NAICS 3364) is the sector that accounts for 67% of employment in the Aerospace Industry
- The annual wage for this sector in Alabama is \$111,663 which exceeds national average of \$104,873 in most counties
- Alabama ranks fifth in the nation for aerospace engineers with an annual mean wage of \$121,370

Highlights of Aerospace Industry

Employment in Aerospace Sectors



- Aerospace sector has an employment of 17,769 with 310 establishments

Aerospace Industry and All Industry Total

Sector	Annual average employment	# of Establishments
Aerospace Product and parts Manufacturing	13,010	80
Air Transportation	686	66
Support Activities for air transportation	3,536	142
Scheduled air transportation	537	22
Total All Industries	1,622,460	123,160

Highlights of Aerospace Industry

- Alabama ranks fifth in the nation in employment level in aerospace engineers.
- First with the highest concentration of jobs and location quotients in aerospace engineers.

Comparison of Aerospace Sector Across States

State	Employment	Employment per thousand jobs	Location Quotient	Annual mean wage
California	7,860	0.48	1	\$134,120
Texas	5510	0.45	1.12	\$120,010
Florida	4640	0.54	1.34	\$107,070
Washington	4110	1.28	3.19	\$133,970
Alabama	3860	2	4.98	\$121,370

* The location quotient is the ratio of the area concentration of occupational employment to the national average concentration., where greater than one indicates the occupation has a higher share of employment.

Top Growth Industries in Alabama Aerospace

- Aerospace industry employment leads to growth in the following industries
- Guided Missile and Space Vehicle Manufacturing
- Aircraft Manufacturing
- Parts for Space Vehicle and Missile Manufacturing

Summary

- Aerospace sector, including aviation manufacturing and service accounts for 7.5% of Alabama's GDP
- Defense industry is an integral part of the aerospace industry in Alabama
- Total economic impact of the aerospace sector is \$17.4 billion
- Total impact on employment is more than 63,000

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